

**Release Bulletin PCR Compano Reader**

**Software Version A09**

**4512 201 01663**



DMC Hamburg

Printed in Hamburg, Germany

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**SERVICE MANUAL - UNIT**

**Release Bulletin PCR Compano Reader**

**Software Version A09**

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**4512 201 01663**

In case there are any questions concerning this manual,  
please, send this LOPAD via fax to +49/(0)40/5078 2481

File: RB Compano Readerb040.doc

**List of pages and drawings (LOPAD)**

**Manual Order No: 4512 984 24593**  
**released 06/2004**

1

2

3 ... 31 (b/04.0)

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**SW delivery information:**

1 CD 4512 116 04303 / 114Y5436002 A09 part of the reader's accessories  
or delivered via service logistics

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## 1. Release Information

### 1.1. Supplied Software

#### PCR Compano Reader SW A09

4512 201 01663

Consisting of:

- 1 CD 'Reader SW Version A09 .....4512 116 04303 / 114Y5436002 A09
- this Release Bulletin .....4512 984 24593

#### Further documentation:

- Service Manual PCR Compano Reader (on CD-ROM) .....4512 984 23734 and higher
- System Manual Installation PCR Compano .....4512 984 2461x
- System Manual Installation PCR Compano S .....4512 984 2540x

The application software of the Compano Reader is delivered on a CD ROM and has to be loaded onto a separate Compano PC, e.g. the PCR Preview Unit or the PCR Console S depending on the type of the Compano system.

The reader itself contains permanent only a FTP program and a configuration file stored in the Flash PROMs of the CPU board. After power-on, the reader establishes a network connection to the Host PC and loads from there its application software. Please refer also to chapter 2 "**Relation between Reader and Compano PC**"

The **machine data** diskette contains a backup of the initial specific scanner data and is marked with the s/n of the reader.

### 1.2. What's new?

#### Correction of the following errors:

1. Double exposed image  
An inserted cassette is fixed by the hold pin. If the cassette is not well aligned to the right side of the slot it could happen that the supervision mechanism of the hold pin is not able to detect a clear status.  
The hold sensor SA3 toggles between OPEN and CLOSE. In this case the temperature adjustment control of the lamp unit will be activated and the normal erasure process of an image plate can not be performed.
2. Netmask is set to default value after SW update  
During an update of the software the file NETMASK has been overwritten by the default file of the CD-ROM.
3. Image retransmission not possible after an interruption of the connection during image transfer

#### Improvements:

1. The PC Maintenance Utility program is upgraded to version 1.4 and is compatible with Windows XP.
2. Korean and Chinese languages supported in the message files of the Reader unit.
3. Communication protocol upgraded from FRUP 2.0 to FRUP 2.1.1

#### Known limitations:

Every time the PC sends a termination command to the Reader unit the warning 12094 followed by a dotted line will be written into the file ERRORB.LOG. A termination command will be sent during shut down or termination of the application software.

### 1.3. Compatibility

PCR Preview Unit      Rel. 1.1 →  
Console Compano S      Rel. 1.1 →

## 2. Relation between Reader and Compano PC

Explained below is the Compano PC/ Reader data exchange operation to be performed when these two system components are connected with each other.

**NOTE:**

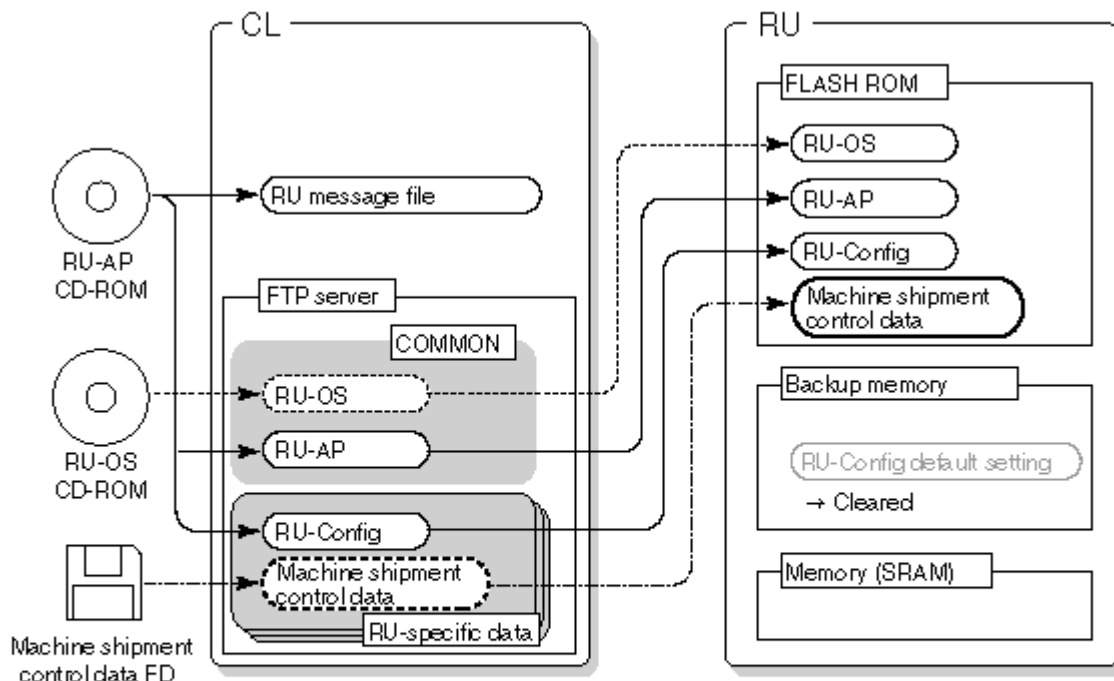
The data referred to herein is for both the application used to operate the Reader (Reader-AP hereinafter) and the Reader's configuration file (Reader-Config hereinafter).

The external interface that updates Reader's internal data, such as the Reader-AP or Reader-Config, is not provided in the Reader main unit. Thus, the Compano PC (OS: Windows 2000/ XP) is used for this purpose. Basically, the Compano PC (=CL = Console) is used to control the Reader.

Because the FTP server function is used for updating Reader's internal data, the FTP server needs to be configured in the Compaq PC.

Furthermore, to enable the Reader to be operated, the Reader-AP and Reader-Config must be stored in the Reader's FLASH ROM and, at the same time, the Reader-AP and Reader-Config of the same contents as that in the FLASH ROM must be stored in the FTP server as well.

### Data Flow during installation:



Those marked by  represent data that is temporarily stored in the FTP server, exclusively for transferring the data to the RU.

Those marked by  represent data that is always stored for comparison with the data in the RU's flash ROM.

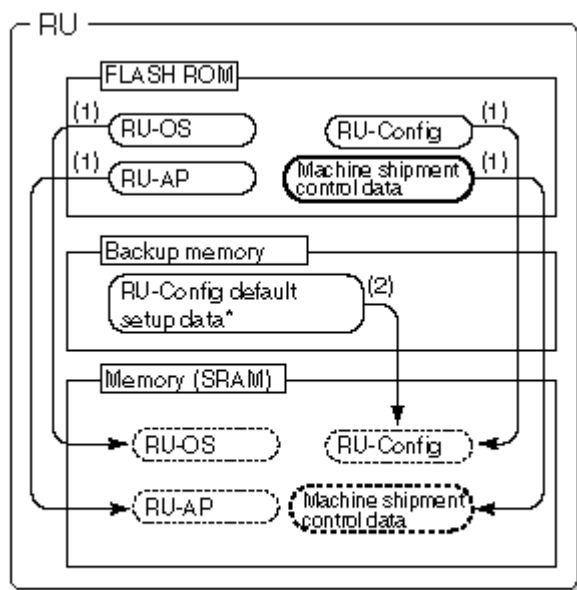
FR6H1415.EPS

**RU-AP (solid-line arrow):**

When RU-AP is installed, the RU-AP, RU-Config, and RU message file are copied to the CL. The RU-AP and RU-Config are copied to the flash ROM via the network.

**RU-OS (dotted-line arrow)/machine shipment control data (alternate-long-and short-dash-line arrow):**

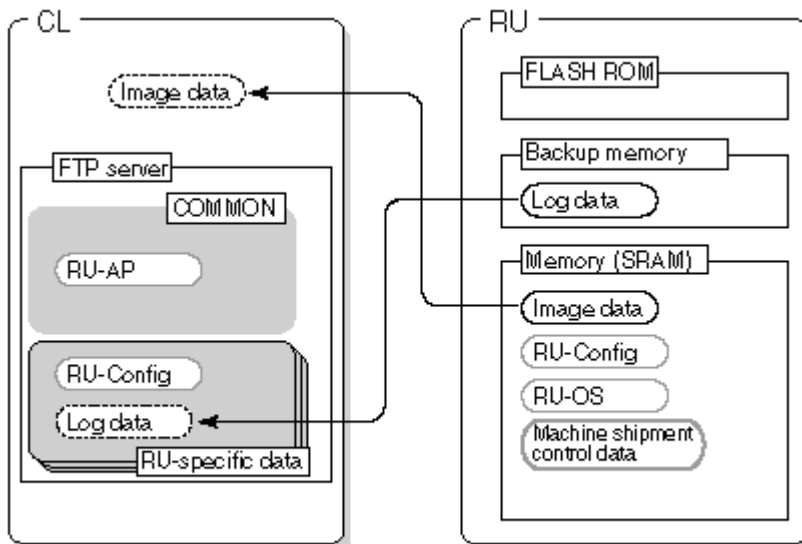
The RU-OS and machine shipment control data are copied to the RU's flash ROM via the FTP server of the CL.

**Data flow during boot up:**

\* It includes network setup items  
(such as default IP addresses of the RU and CL, etc.).  
FR6H1416.EPS

The data in the Flash ROM will be copied into the memory (1).

If the backup memory has been erased and contains the default data now, the configuration data of the memory will be overwritten by the default data (2).

**Data flow in the normal process:**

FR6H1417.EPS

**Image data:**

The image data scanned from the IP is temporarily stored in the SRAM, and then transferred to the CL via the network.

**Log data:**

The log data is written, upon shutdown processing or upon occurrence of a FATAL error, from the RU BACKUP MEMORY (SRAM) to the FTP server.

The RU BACKUP MEMORY (SRAM) retains the log data that is logged while the RU is powered ON.

The FTP server retains a certain amount of the log data, which is overwritten by newer data on a first-in-first-out basis when a predetermined level is exceeded.

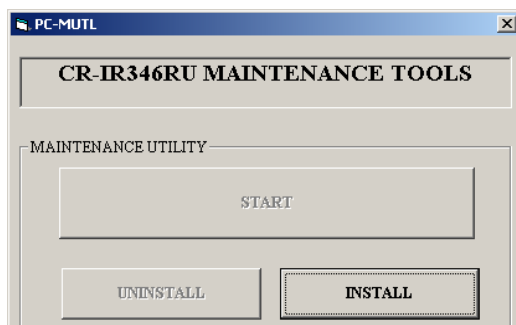
### 3. Initial Software Installation and Setup

**Before you begin:**

The default factory set IP address for the Reader is 172.16.1.10. This IP address is initially used for setting up the Reader from the Compano PC via the network. If the Reader is hooked up to a hospital network, it can be possible that the network administrator doesn't allow you to connect the Reader using the default IP address. In that case you should either use a separate network hub or set up the Reader via the serial port (see chapter **MUTL via the Serial Port**).

Make sure that Compano PC and Reader are connected to the network and are both switched on. The Reader software has to be installed in the Administrator mode if applicable at the PC.

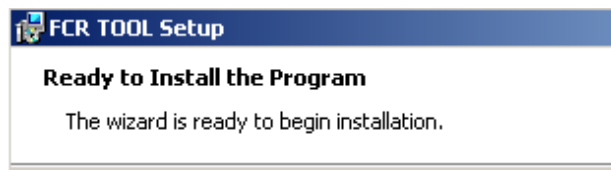
1. Insert the CD into the CD-ROM drive of the Compano PC.  
Within a few seconds the **CR-IR 346RU Maintenance Tool** is started.



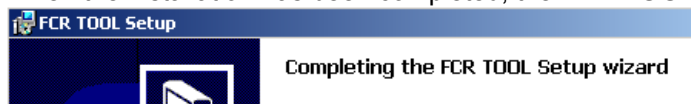
2. Click **[Install]**:



3. Click **[Next]** .  
The **FCR TOOL Setup/Ready to Install...** window opens.



4. Click **[Install]**:  
When the installation has been completed, the **FCR TOOL Setup/Completing the...** window opens.



5. Click **[Finish]**.

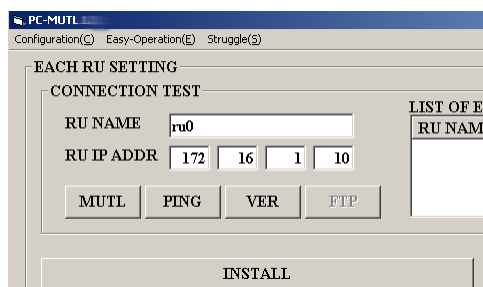
The system returns to the **CR-IR 346RU MAINTENANCE TOOLS** window.

6. Click **[Start]** to start the **PC MAINTENANCE UTILITY (PC MUTL)**.

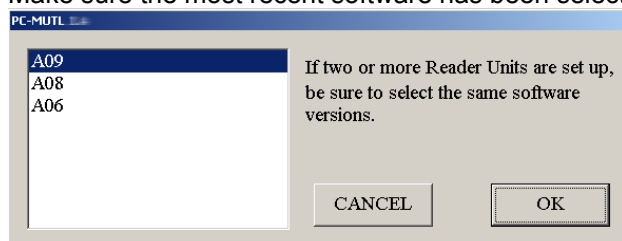


7. The default address for the Reader is already entered. This address is used to initially communicate with the Reader even if the address will be changed later on.

To check the communication click **[PING]**.



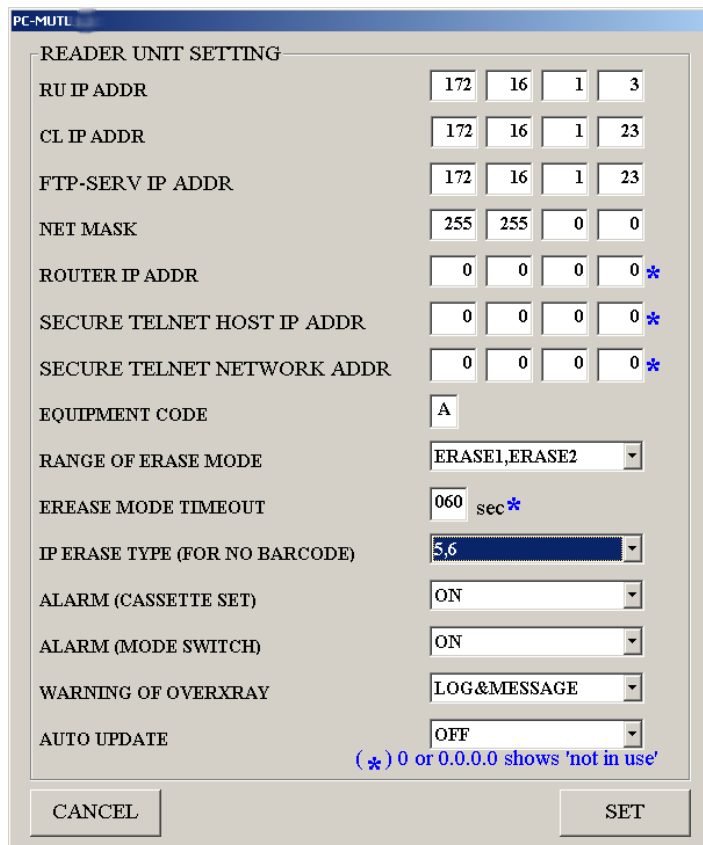
8. Click **[Install]**.
9. When asked for, make sure the CD is inserted and click **[OK]**.
10. Make sure the most recent software has been selected and click **[OK]**:



11. Now enter the configuration data:

<b>RU IP ADDR</b>	IP address of the Reader
<b>CL IP ADDR</b>	IP address of the Compano PC
<b>FTP-SERV IP ADDR</b>	IP address of the Compano PC
<b>NET MASK</b>	Net mask, to be set as narrow as possible
<b>ROUTER IP ADDR</b>	IP address of the default gateway or router
<b>SECURE TELNET HOST IP ADDRESS</b>	Default: 0.0.0.0
<b>SECURE TELNET NETWORK ADDRESS</b>	Default: 0.0.0.0
<b>EQUIPMENT CODE</b>	Reader unique ID, must be different in a cluster
<b>RANGE OF ERASE MODE</b>	Specifies the erasure mode range. ERASE 1: Primary erasure can be selected. ERASE 1, ERASE 2: Both primary and secondary erasures can be selected.
<b>ERASE MODE TIMEOUT</b>	Default : 60 sec
<b>IP ERASE TYPE</b>	Setup needed if no barcode reader is installed. 5, 6 :Types V and VI mixed. 6 : Type VI
<b>ALARM (CASSETTE SET)</b>	Sets alarm ON/OFF when cassette is inserted. ON : Alarm sounds. OFF : Alarm does not sound
<b>ALARM (MODE SWITCH)</b>	Sets alarm ON/OFF when erasure processing is selected. ON : Alarm sounds. OFF : Alarm does not sound.
<b>WARNING OF OVERXRAY</b>	Selects X-ray over-exposure IP warning method. LOG & MESSAGE: Warning by log and message. LOG: Warning by log. NONE: No warning issued .
<b>AUTO UPDATE</b>	Select OFF





PC-MUTL

READER UNIT SETTING

RU IP ADDR: 172 16 1 3

CL IP ADDR: 172 16 1 23

FTP-SERV IP ADDR: 172 16 1 23

NET MASK: 255 255 0 0

ROUTER IP ADDR: 0 0 0 0 \*

SECURE TELNET HOST IP ADDR: 0 0 0 0 \*

SECURE TELNET NETWORK ADDR: 0 0 0 0 \*

EQUIPMENT CODE: A

RANGE OF ERASE MODE: ERASE1,ERASE2

EREASE MODE TIMEOUT: 060 sec \*

IP ERASE TYPE (FOR NO BARCODE): 5,6

ALARM (CASSETTE SET): ON

ALARM (MODE SWITCH): ON

WARNING OF OVERXRAY: LOG&MESSAGE

AUTO UPDATE: OFF

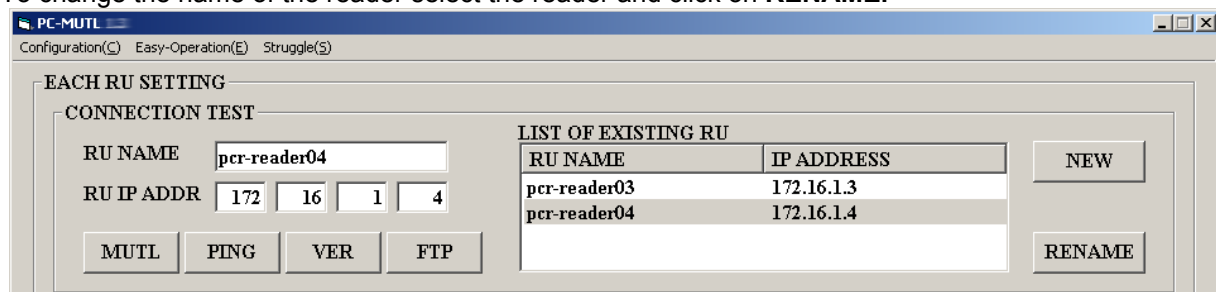
(\*) 0 or 0.0.0.0 shows 'not in use'

CANCEL SET

Click [**SET**] to store the configuration data onto hard disk and in the reader.

During transfer of the configuration data the reader is giving a few beeps and the LEDs at the front panel are flashing. Never turn off the power of the reader in this situation. Wait until transfer has been finished and the window has been closed.

12. When the **Completed** message is displayed, click [**OK**].
13. To change the name of the reader select the reader and click on **RENAME**.



PC-MUTL

Configuration(C) Easy-Operation(E) Struggle(S)

EACH RU SETTING

CONNECTION TEST

RU NAME: pcr-reader04

RU IP ADDR: 172 16 1 4

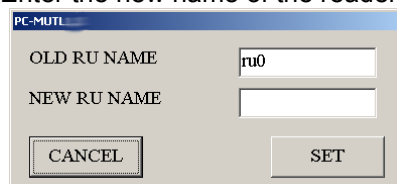
MUTL PING VER FTP

LIST OF EXISTING RU

RU NAME	IP ADDRESS
pcr-reader03	172.16.1.3
pcr-reader04	172.16.1.4

NEW RENAME

14. Enter the new name of the reader and click on **SET**.



PC-MUTL

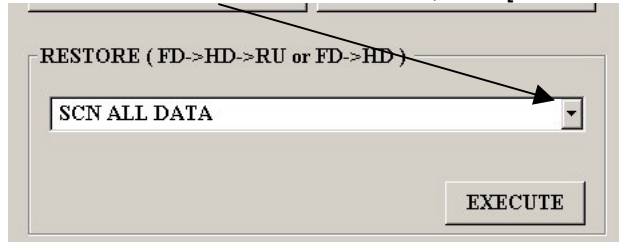
OLD RU NAME: ru0

NEW RU NAME:

CANCEL SET

During data transfer the reader is giving a few beeps and the LEDs at the front panel are flashing. Never turn off the power of the reader in this situation. Wait until transfer has been finished and the window has been closed.

15. Insert the floppy disk **Machine Shipment Data** that came with the Reader into the floppy drive.
16. Select **SCN ALL DATA** from the list, click **[EXECUTE]** , then **[OK]**.



During transfer of the scanner data the reader is giving a few beeps and the LEDs at the front panel are flashing. Never turn off the power of the reader in this situation.

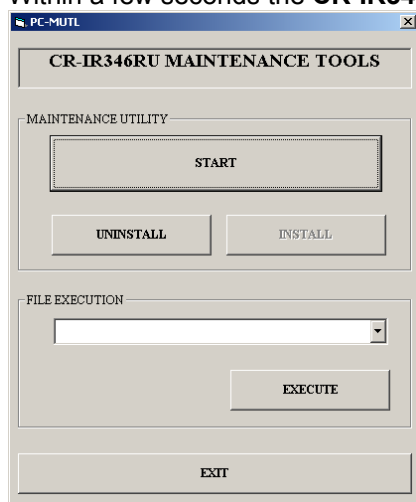
Wait until transfer has been finished and the window has been closed.

17. When the **Completed** message is displayed, click **[OK]**.
18. Click **[X]** to close the **Maintenance utility** window.
19. Click **[EXIT]** to close the **Maintenance tool** window.
20. Remove CD and floppy from the drive and go back to the Release Bulletin of the Compagno PC.

## 4. Upgrading to A09

### 4.1. Remove the old PC Maintenance Utility

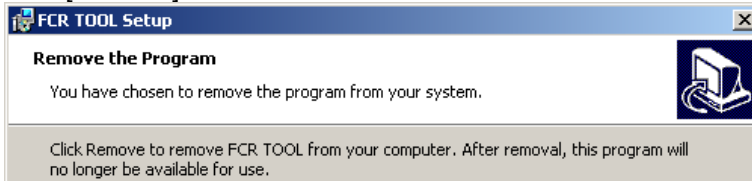
1. Leave the application software and make sure to be logged in as administrator.
2. Insert the CD into the CD drive.  
Within a few seconds the **CR-IR346RU Maintenance Tool** is started.



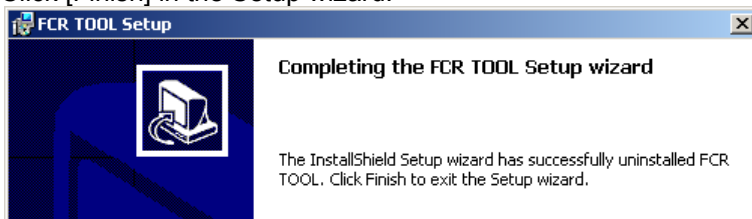
3. Click **[Uninstall]**.
4. Click **[Next]** in the setup wizard.



5. Click [Remove] in the Install Shield.

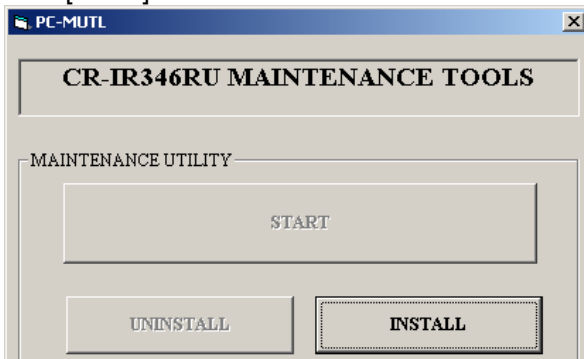


6. Click [Finish] in the Setup wizard.



## 4.2. Install the new PC Maintenance Utility 1.4

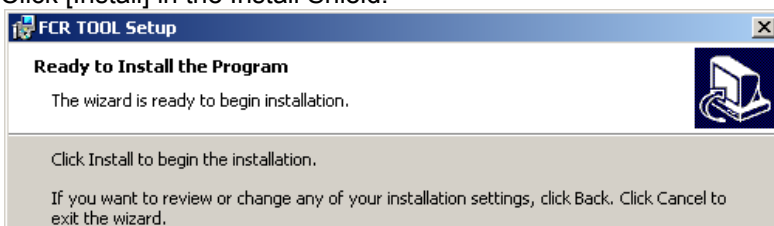
1. Click [Install] in the CR-IR346RU Maintenance Tool.



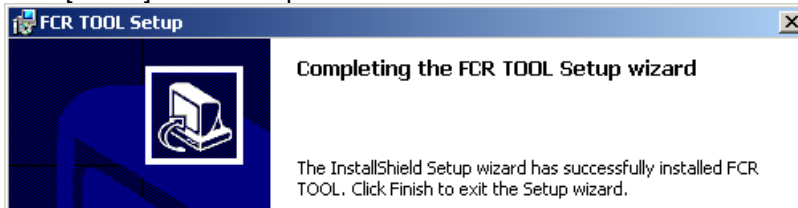
2. Click [Next] in the Setup wizard.



3. Click [Install] in the Install Shield.

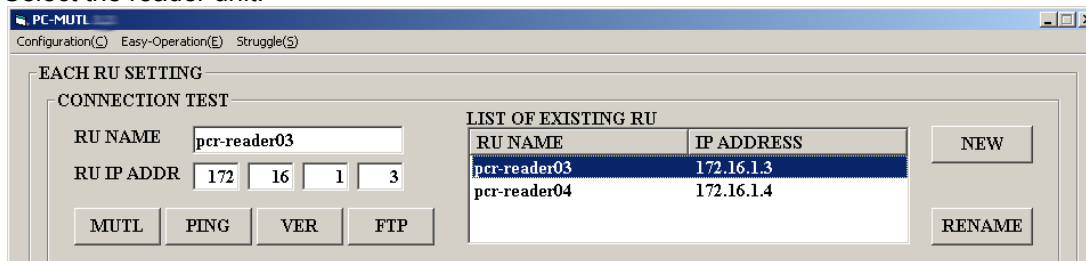


4. Click [Finish] in the Setup wizard.



### 4.3. Check the FTP Server

1. Select the reader unit.



2. Click [FTP] button. Check the contents of both command prompt windows.  
The following are examples only!

FTP at the Compagno PC side:			Example only!
<pre> .\COMMON: 07-24-01 08:00AM          131840 346FT.O 07-24-01 08:00AM          65536 BOOTSECT.O 05-22-02 02:00AM        1013426 CR-IR346.O 09-27-00 05:00PM          65535 IMAGEAPL.O 09-27-00 05:00PM          65535 IMAGEIPL.O 07-24-01 08:00AM          243743 VXWORKS2.ST           </pre>			
<pre> .\pcr-reader03: 09-13-02 08:51AM    &lt;DIR&gt;          CONFIG 09-12-02 02:50PM    &lt;DIR&gt;          LOG 09-12-02 01:40PM    &lt;DIR&gt;          MACHINE           </pre>			Check name of the reader unit.
<pre> .\pcr-reader03\CONFIG: 09-13-02 08:51AM          1676 IRSET.CFG 02-01-02 05:00PM          1649 IRSET.ORG 09-12-02 02:31PM           959 IRSTATUS.CFG 09-27-00 05:00PM           959 IRSTATUS.ORG 09-03-02 01:46PM           106 NETMASKS 09-27-00 05:00PM           258 ROUTE           </pre>			Check name of the reader unit.
<pre> .\pcr-reader03\LOG: 09-12-02 02:56PM          916 HISTORY.LOG 09-12-02 02:50PM          176 IOT.031 09-12-02 01:09PM           88 RUAPPL.chk 09-12-02 01:09PM        1521 RUAPPL.dat 09-12-02 02:31PM          100 RUCONFIG.chk 09-12-02 02:31PM        1426 RUCONFIG.dat 09-13-02 08:51AM           25 RUHost.dat 09-12-02 01:47PM        1602 Version.dat           </pre>			Check name of the reader unit. History file must be available.

#### FTP server check from the reader's side:

Example only!

```

0.QUIT
1.~cr-ir346/
2.~cr-ir346/SYSTEM/
3.~cr-ir346/SYSTEM/COMMON/
4.~cr-ir346/SYSTEM/[RuName]/CONFIG /
5.~cr-ir346/SYSTEM/[RuName]/MACHINE/
TST>NTW>DSPFTP>4
SYSTEM/pcr-reader03/CONFIG/

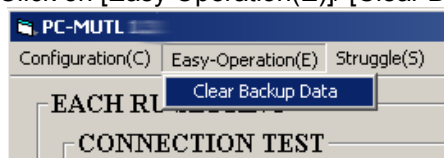
```

09-13-02	08:51AM	1676	IRSET.CFG
02-01-02	05:00PM	1649	IRSET.ORG
09-12-02	02:31PM	959	IRSTATUS.CFG
09-27-00	05:00PM	959	IRSTATUS.ORG
09-03-02	01:46PM	106	NETMASKS
09-27-00	05:00PM	258	ROUTE
0.END (DEFAULT=0) : 0			
<b>RESULT : OK</b>		<i>OK must be displayed.</i>	

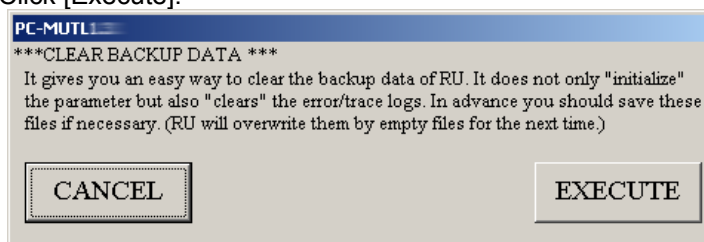
If there is anything abnormal please refer to section '**Trouble with Configuration**'.

#### 4.4. Clear Backup Memory Data

1. Select the reader unit in the PC Maintenance Utility.
2. Click on [Easy Operation(E)]/ [Clear Backup Data].



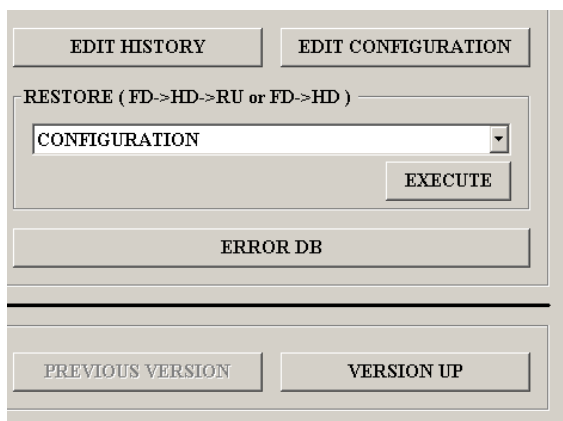
3. Click [Execute].



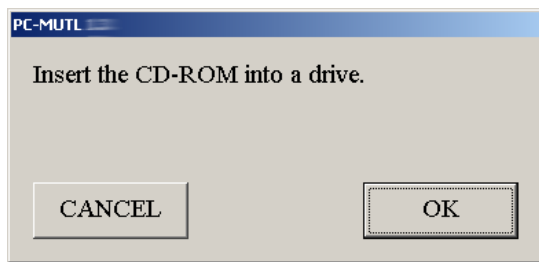
In a DOS windows can be seen that the Compagno PC establishes the network connection to the reader and starts the MUTL in the reader.

#### 4.5. Upgrade the reader unit software

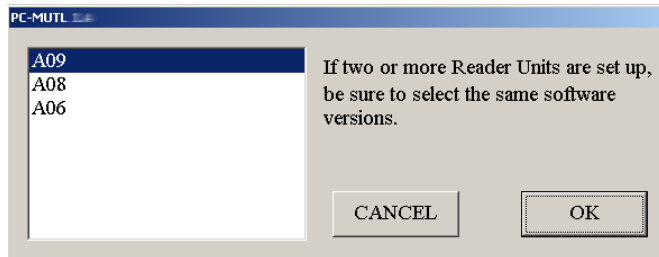
1. Click on [Version up].



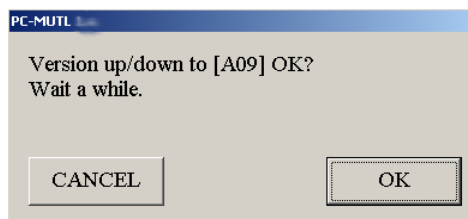
- Put the CD-ROM into the drive and click [OK].



- Select the version A09 and click [OK].

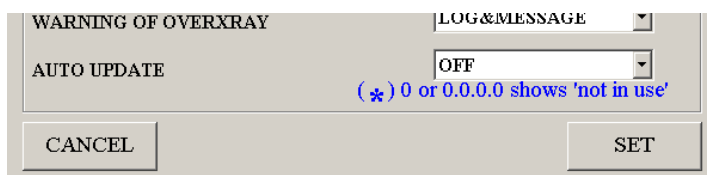


- Click [OK] in the confirmation window.

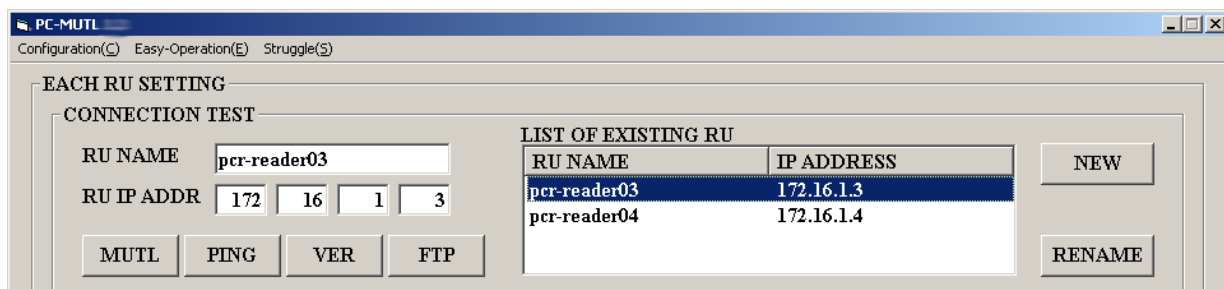


During transfer of the data the reader is giving beeps and the LEDs at the front panel are flashing. Never turn off the power of the reader in this situation. Wait until the transfer (about 3 min.) has been finished and the window has been closed. All connected reader units will be updated automatically.

- Click [OK] in the appearing complete window.
- Set AUTOUPDATE to OFF in **Edit Configuration** and click [Set].



- Select the reader unit and click [Ver] button.



8. Check the software upgrade in the opened command prompt windows.

```

RU[pcr-reader03] login: cr-ir346
Password:
-> mutl

MAINTENANCE UTILITY FOR CR-IR346.
Escape INPUT/AUTO mode: [CTRL+C] [ENTER]
0.QUIT
1.LOG
2.VERSION
3.TEST
4.ELECTORICAL UTILITY
5.SCANNER UTILITY
6.MECHANICAL UTILITY
7.SOFTWARE UTILITY
8.BACKUP MEMORY INITIALIZE
9.HV OFF
>2
0.QUIT
1.DISPLAY VERSION
2.DETAIL
VER>1
CR-IR346RU Application Software : 114Y5436002A09    Check for A09!
Software Resource Version
MAIN CPU IPL      : Z45N5436001A02
MAIN CPU APPL     : Z45N5436002A09    Check for A09!
SUB CPU IPL       : Z45N5436103A01
SUB CPU APPL      : Z45N5436103B02
SCN CPU APPL      : Z45N5436202B06

Hardware Type(VER_REG)
CPU12A           : 00 [02,00]
SNS12A           : 00 [00]
DRV12A           : 00
SCN12A           : 00 [14]

0.QUIT
1.DISPLAY VERSION
2.DETAIL
VER>

```

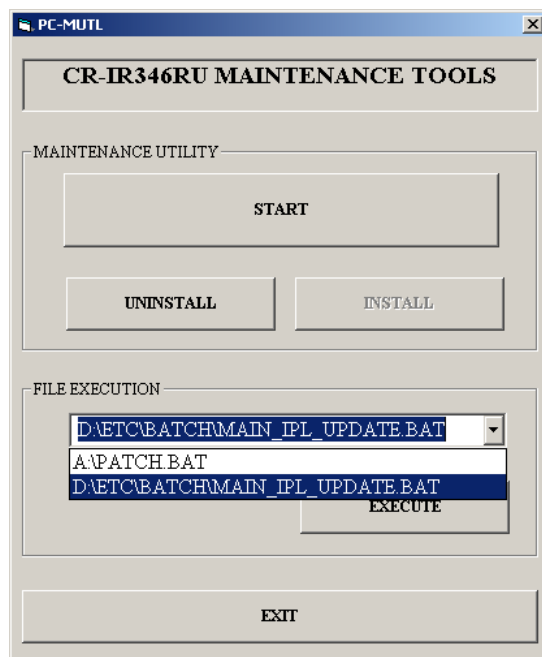
If the MAIN CPU IPL has not being upgraded to A02 proceed with next chapter 'Manual Main IPL Software Upgrade'.

9. Start up the reader and the Compano PC in the normal application mode. Check that no errors and no abnormal images occur.

## 4.6. Manual Main IPL Software Upgrade

This is the manual way for upgrading the Main IPL software of the reader if the previous automatic upgrading has failed.

1. Insert the CD-ROM into the drive.  
The CR-IR346RU Maintenance Tool appears.
2. Select the batch file according to the figure below.



3. Add the IP address of the reader to the batch file, e.g. ...\_UPDATE.BAT **172.16.1.3**
4. Click [Execute].
5. Press [Enter] when the following messages appear.

```
===== MAIN_IPL_UPDATE.BAT =====
This is a batch program to upgrade the MAIN_IPL software of RU.
At first, automatically check the version of the RU's application.
---- Are you ready? (Escape character is [CTRL]+C) ----
Press any key to continue . . .
```

**Press <Enter>**

```
CR-IR346RU Application Software : 114Y5436002A08

Confirm the version A05 or later (see an underline-part above).
Never turn the RU OFF while updating, or you will lose the CPU12A board.
---- Are you ready? (Escape character is [CTRL]+C) ----
Press any key to continue . . .
```

**Press <Enter>**

During the following transfer of the data the reader is giving beeps and the LEDs at the front panel are flashing.

Never turn off the power of the reader in this situation.

Wait until the data transfer has been finished and the result OK is displayed.

The transfer happens twice!



```
RU[pcr-reader03] login: cr-ir346
Password:
-> mutl

MAINTENANCE UTILITY FOR CR-IR346.
Escape INPUT/AUTO mode: [CTRL+C] [ENTER]
0.QUIT
1.LOG
2.VERSION
3.TEST
4.ELECTORICAL UTILITY
5.SCANNER UTILITY
6.MECHANICAL UTILITY
7.SOFTWARE UTILITY
8.BACKUP MEMORY INITIALIZE
9.HV OFF
>2

0.QUIT
1.DISPLAY VERSION
2.DETAIL
VER>2

0.QUIT
1.LOAD SOFTWARE FROM FTP-SERV
2.LOAD CONFIGURATION FROM FTP-SERV
3.COMPARE SOFTWARE WITH FTP-SERV
VER>DETAIL>1

0.QUIT
1.MAIN CPU IPL
2.MAIN CPU APPL
3.MAIN CPU FT
4.SUB CPU IPL
5.SUB CPU APPL
VER>DTL>LDSFT>3

ARE YOU SURE ?
1.YES 2.NO(DEFAULT=2) : 1

WAIT FOR A WHILE. IT TAKES FROM 3 TO 180 SECONDS.
NEVER TURN OFF THE RU UNTIL "RESULT" IS INDICATED !!!

RESULT : OK

0.QUIT
1.MAIN CPU IPL
2.MAIN CPU APPL
3.MAIN CPU FT
4.SUB CPU IPL
5.SUB CPU APPL
VER>DTL>LDSFT>1

ARE YOU SURE ?
1.YES 2.NO(DEFAULT=2) : 1

WAIT FOR A WHILE. IT TAKES FROM 3 TO 180 SECONDS.
NEVER TURN OFF THE RU UNTIL "RESULT" IS INDICATED !!!

RESULT : OK

0.QUIT
1.MAIN CPU IPL
2.MAIN CPU APPL
3.MAIN CPU FT
4.SUB CPU IPL
5.SUB CPU APPL
VER>DTL>LDSFT>0
Press any key to continue . . .
```

**Wait for OK!**

**Wait for OK!**

**Press <Enter>**

6. Click [Exit].

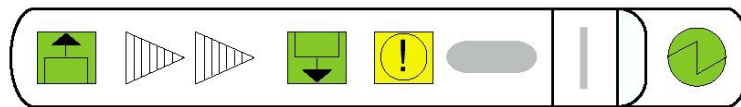
## 5. Auto- Updating Software

**Note:** Configure the reader to **AUTO UPDATE = OFF** for the normal application.

Normally the reader has been configured to **AUTO UPDATE = OFF** to prevent an automatic upload of new software from the Compano PC. This is very important especially during the automatic conversion of winter/summer time.

If **AUTO UPDATE = ON** the Reader detects after its boot process an updated configuration file or application software on the Compano PC, the reader shows the following behavior, explained for a Compano S system.


1. All the LEDs on the RU panel come on and short beeps are generated, indicating that the Reader software and configuration data are being updated.



### Caution:

**While the RU panel LEDs are illuminated, never turn OFF the Reader because its CPU board may get damaged.**

If you have reloaded the software and you are using the same configuration data for the Reader, the LED may not come on.

2. When the button  appears (language dependent) click this button.

The configuration data in the Reader FLASH ROM is updated.

3. After a while the Reader initialization process begins. The Console application window shows a message to indicate that the Reader is being initialized. Note that this message does not appear if the Reader has been started up before the Console application.

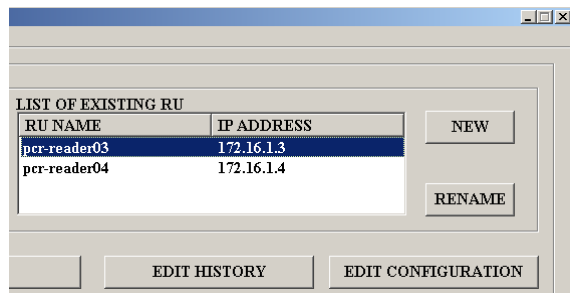


## 6. Configuration

The meaning of the configuration parameters are described in the service manual of the reader. See section Maintenance Utility.

### 6.1. Changing the configuration

1. Startup the Maintenance Utility as described in chapter **Starting the Maintenance Utility**.
2. From the **LIST OF EXISTING RU**, click the Reader which configuration file is to be set.



3. Click **[EDIT CONFIGURATION]**. The **READER UNIT SETTING** window opens:

**PC-MUTL**

**READER UNIT SETTING**

RU IP ADDR: 172 16 1 3

CL IP ADDR: 172 16 1 23

FTP-SERV IP ADDR: 172 16 1 23

NET MASK: 255 255 0 0

ROUTER IP ADDR: 0 0 0 0 \*

SECURE TELNET HOST IP ADDR: 0 0 0 0 \*

SECURE TELNET NETWORK ADDR: 0 0 0 0 \*

EQUIPMENT CODE: A

RANGE OF ERASE MODE: ERASE1,ERASE2

EREASE MODE TIMEOUT: 060 sec \*

IP ERASE TYPE (FOR NO BARCODE): 5,6

ALARM (CASSETTE SET): ON

ALARM (MODE SWITCH): ON

WARNING OF OVERXRAY: LOG&MESSAGE

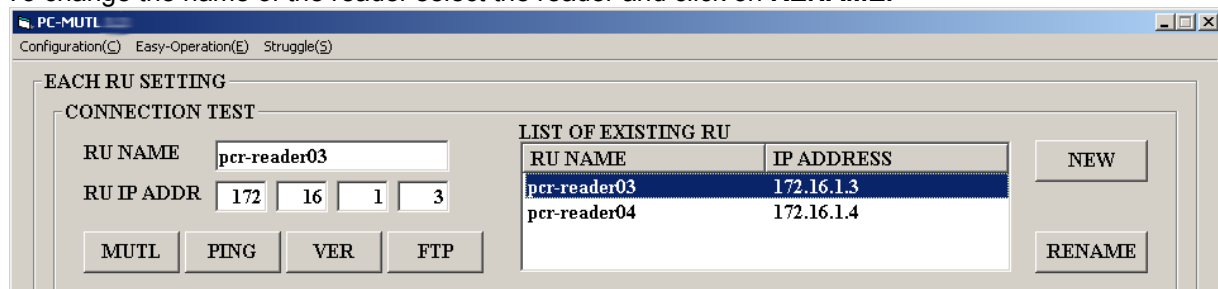
AUTO UPDATE: OFF

(\*) 0 or 0.0.0.0 shows 'not in use'

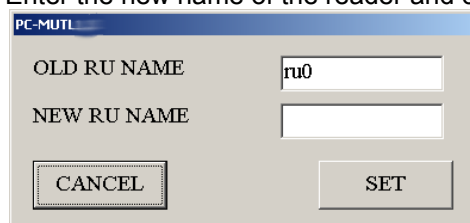
CANCEL SET

<b>RU IP ADDR</b>	IP address of the Reader
<b>CL IP ADDR</b>	IP address of the Compano PC
<b>FTP-SERV IP ADDR</b>	IP address of the Compano PC
<b>NET MASK</b>	Net mask, to be set as narrow as possible
<b>ROUTER IP ADDR</b>	IP address of the default gateway or router
<b>SECURE TELNET HOST IP ADDRESS</b>	Default: 0.0.0.0
<b>SECURE TELNET NETWORK ADDRESS</b>	Default: 0.0.0.0
<b>EQUIPMENT CODE</b>	Reader unique ID, must be different in a cluster
<b>RANGE OF ERASE MODE</b>	Specifies the erasure mode range. ERASE 1: Primary erasure can be selected. ERASE 1, ERASE 2: Both primary and secondary erasures can be selected.
<b>ERASE MODE TIMEOUT</b>	Default : 60 sec
<b>IP ERASE TYPE</b>	Setup needed if no barcode reader is installed. 5, 6 :Types V and VI mixed. 6 : Type VI
<b>ALARM (CASSETTE SET)</b>	Sets alarm ON/OFF when cassette is inserted. ON : Alarm sounds. OFF : Alarm does not sound
<b>ALARM (MODE SWITCH)</b>	Sets alarm ON/OFF when erasure processing is selected. ON : Alarm sounds. OFF : Alarm does not sound.
<b>WARNING OF OVERXRAY</b>	Selects X-ray over-exposure IP warning method. LOG & MESSAGE: Warning by log and message. LOG: Warning by log. NONE: No warning issued .
<b>AUTO UPDATE</b>	Select OFF

- Change the data as needed.
- When done click **[SET]**. The configuration is saved to hard disk and the system returns to the main menu.
- To change the name of the reader select the reader and click on **RENAME**.

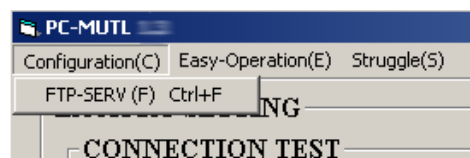


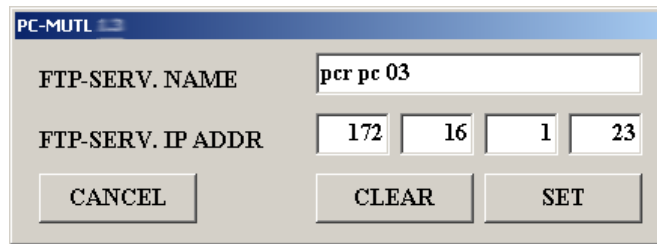
- Enter the new name of the reader and click on **SET**.



During data transfer the reader is giving a few beeps and the LEDs at the front panel are flashing. Never turn off the power of the reader in this situation. Wait until transfer has been finished and the window has been closed.

- Click **[X]**. The system returns to the desktop screen.
- Adapt the name and IP address of the FTP Server of the Compano PC by using the menu **Configuration/FTP-SERV (F)**.





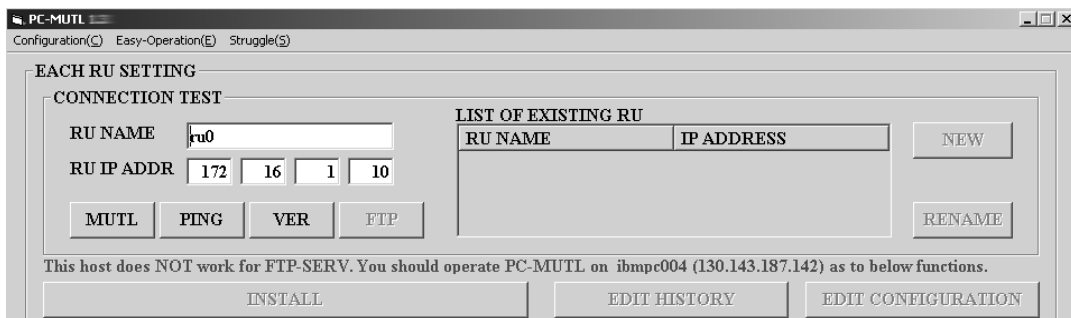
The image shows a Windows-style dialog box titled "PC-MUTL". It contains two main input sections. The first section is labeled "FTP-SERV. NAME" and has a text box containing the value "pcr pc 03". The second section is labeled "FTP-SERV. IP ADDR" and consists of four separate input boxes containing the numbers "172", "16", "1", and "23" respectively. At the bottom of the dialog, there are three buttons: "CANCEL", "CLEAR", and "SET".

10. Adapt also the host name and IP address of the Compano PC in Windows.  
Refer to the Release Bulletin of the Console Compano S and the Preview Unit respectively.
11. Now restart the Reader and start up the application.

## 6.2. Trouble with Configuration

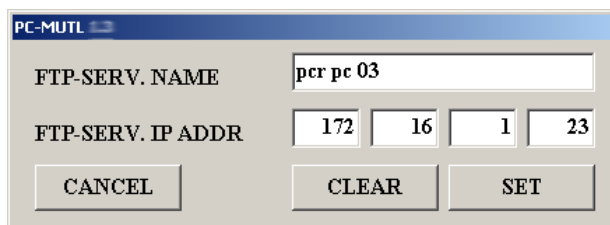
### 6.2.1. This Host does not work for FTP\_SERV

Example:



Cause: IP name and IP address of the Compano PC does not match the configuration of the reader.

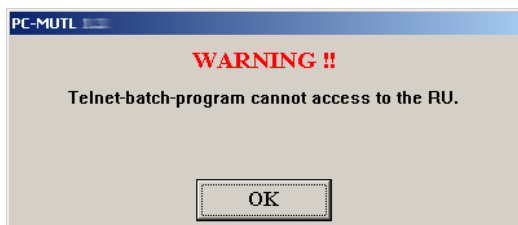
Solution: Configure the FTP Server of the Compano PC.  
For doing this click Configuration(C)/ FTP-SERV (F), enter the matching data and click [Set].



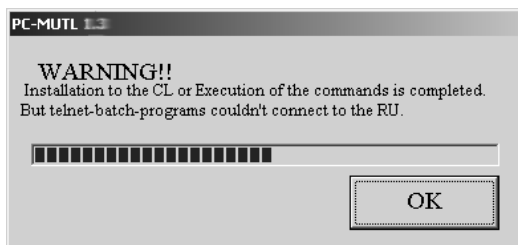
Be sure that the entered data are identical with the one set in Windows.

### 6.2.2. Telnet- Batch- Program cannot access the RU

Example 1:



Example 2:



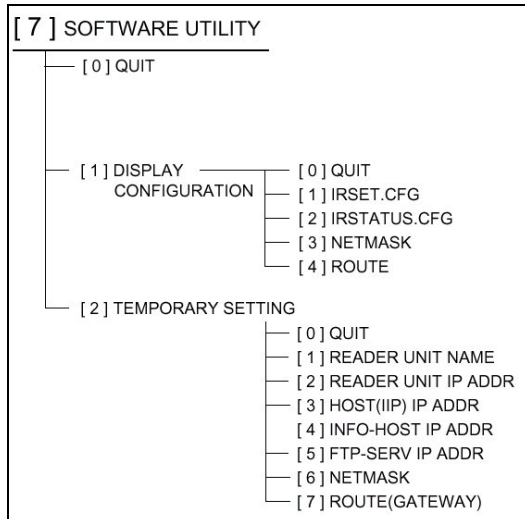
Cause: The IP addresses and names stored in the Flash ROM of the reader do not match the reader configuration at the Compano PC.

Solution: Adapt the IP names and IP addresses either inside the reader (via serial interface) or in the reader's configuration at the Compano PC side.

### 6.2.3. Temporary Settings inside the Reader

However, if there is a configuration mismatch, the Flash ROM inside the reader can be configured directly.

1. Start **MUTL** either via the network or the serial interface.
2. Enter 7 to select **SOFTWARE UTILITY**.
3. Enter 2 to select **TEMPORARY SETTING**.



Now enter in sequence

[ 1 ] READER UNIT NAME	IP name of the Reader
[ 2 ] READER UNIT IP ADDR	IP address of the Reader
[ 3 ] HOST(IIP) IP ADDR	IP address of the Compano PC
[ 4 ] INFO-HOST IP ADDR	IP address of the Compano PC
[ 5 ] FTP-SERV IP ADDR	IP address of the Compano PC
[ 6 ] NETMASK	Net mask
[ 7 ] ROUTE(GATEWAY)	IP address of the Router / Gateway

IP names and IP addresses must match the settings made at the Compano PC.

4. When done, press <0> <Enter> and again <0> <Enter>.
5. Restart the Reader.

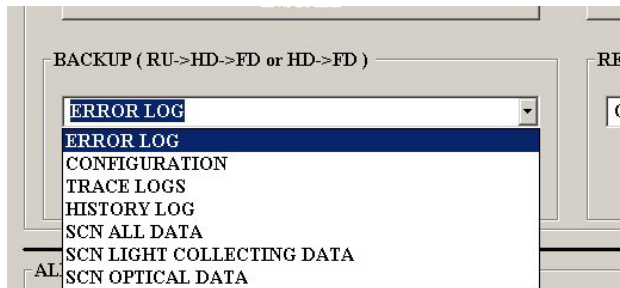
### 6.3. Backup and Restore

Startup the PC Maintenance Utility.

Have on hand a formatted diskette or the diskette containing the backup data.

#### 6.3.1. Backup

1. To back up reader-specific data select the data you want to save from the list:

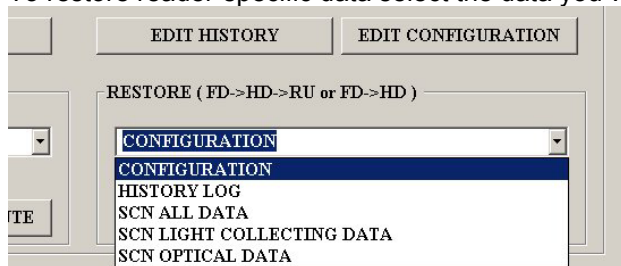


Recommend data: CONFIGURATION, SCN ALL DATA, HISTORY LOG

2. Click **[EXECUTE]** and follow the instruction given.

#### 6.3.2. Restore

1. To restore reader-specific data select the data you want to restore from the list:



2. Click **[EXECUTE]** and follow the instruction given.

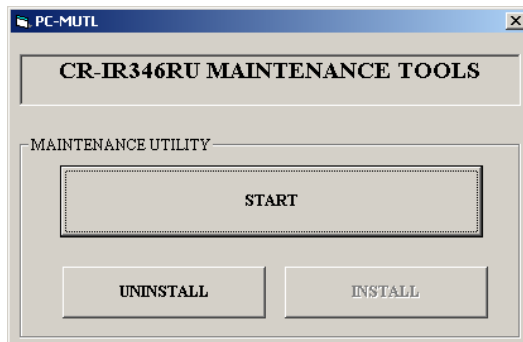


## 7. Uninstall Software

Two software packages are stored at the Compagno PC, the PC Maintenance Utility and the application software of the reader unit.

### Uninstall the PC Maintenance Utility:

1. Insert the CD-ROM containing the application software of the reader.  
The CR-IR346 Maintenance Tool starts automatically.

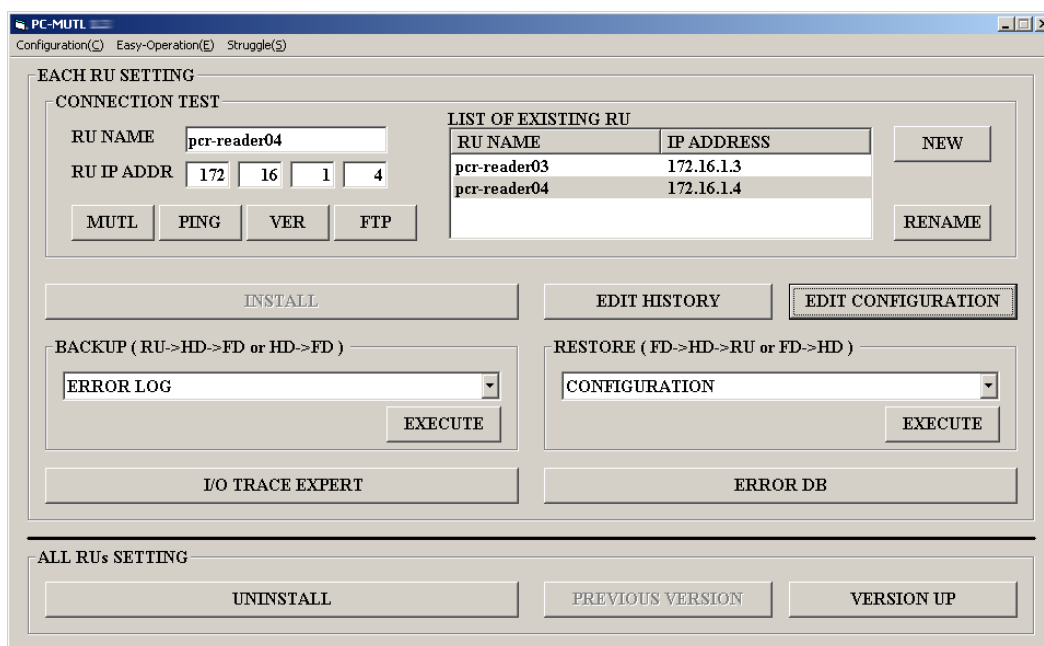


2. Click [Uninstall] and follow the instructions of the uninstall wizard.

### Uninstall the application software:

1. Insert the CD-ROM containing the application software of the reader and wait for the CR-IR346 Maintenance Tool.
2. Click [Start] to open the PC Maintenance utility.
3. Click [Uninstall].

The application software and the configuration of **all** readers will be removed.



## 8. Servicing the Reader

### Prerequisites:

- Null Modem cable (delivered with the system) when using the serial interface

All service functions of the reader are managed by the program **PC Maintenance Utility** running on the Compano PC. A subpart is the program **MUTL** which is stored on the CPU board of the reader.

MUTL can be reached either via network or the serial interface.

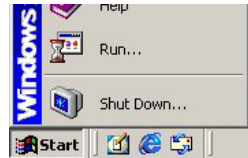
If selected via the Maintenance Utility a login with **cr-ir346** as login name and password is required.

### 8.1. Starting the PC Maintenance Utility

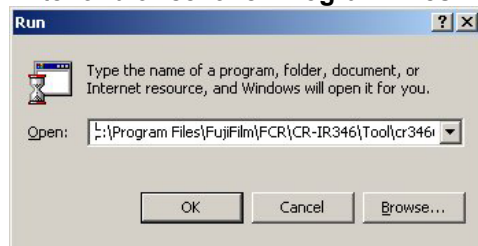
1. Exit the application of the Console Compano S or the Preview Unit by pressing the <Shift> button and clicking on the Philips and/or Exit field. The Windows desktop appears.
2. Log off as user and log on as administrator if an user has been created (preview unit).
3. Start the PC Maintenance Utility program by doing the following:

Click 

Click **Run...**



Enter or browse for **c:\Program Files\FujiFilm\FCR\Tool\cr346uty.exe** and click [OK].



4. Select the reader unit in the **LIST OF EXISTING RU**. Now all service functions are selectable.

Recommendation: Create a shortcut to the desktop of the Compano PC.

**Note:** Do not use the PC Maintenance Utility and the application at the same time.  
Then the Maintenance Utility will not work correctly.

### 8.2. MUTL via the Network

1. Start the PC Maintenance Utility at the Compano PC.
2. Select the reader unit and MUTL.
3. Login with **cr-ir346** as login name and password. The prompt '**->**' appears.
4. Enter **mutl** and press <Enter>, the service menu of the reader is displayed.

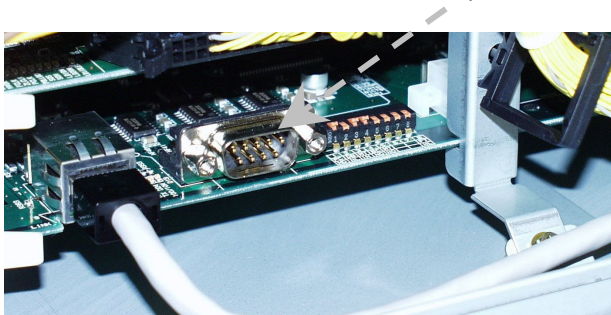
For further explanations please refer to the Service Manual of the Compano Reader.

### 8.3. MUTL via the Serial Port

1. Open the front cover of the Reader and remove the lower light protection cover.



2. Connect Null Modem cable to the serial port on the CPU board of the Reader.



3. Connect Null Modem cable to a serial port of the PC.
4. On the PC start up a terminal program (e.g. Start > Accessories > Hyperterminal > Hyperterminal).
5. Select the right COM port and set the protocol parameter to 9600,8,N,1.
6. Press <Enter>.  
The prompt ':->' of the Operating System should now be displayed.
7. Enter **mutl** and press <Enter>, the service menu of the reader is displayed.

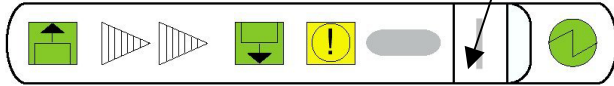
To see also the Reader's start-up messages, reboot the Reader.

For further explanations please refer to the Service Manual (on CD-ROM) of the Compano Reader.

## 8.4. Resetting the Reader to factory defaults

To clear the Reader's Backup memory (FLASHROM) and to set the Reader IP address to "172.16.1.10", perform the following steps:

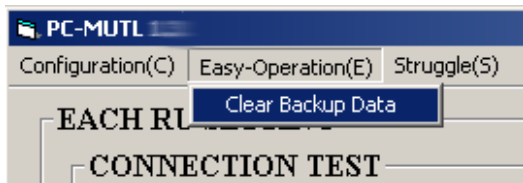
1. While holding down the Reader's **<Erasure Process>** switch turn ON the power switch.



2. Verify that the primary erasure indicator LED on the Reader panel comes on. (At this stage, you still have to hold down the **<Erasure Process>** switch.) If the LED remains extinguished, repeat step 1.
3. Release the **<Erasure Process>** switch.  
The Reader is now set to defaults.

### **Alternatively:**

The same result will be achieved by using the function **Easy Operation(E)/Clear Backup Data** of the PC Maintenance Utility:



## 8.5. CPU board defective?

It could happen that the CPU board is not able to execute the MUTL program anymore.

In cases where the prompt '**->**' still appears it is possible to reset the CPU board by reloading the application SW. Only under this condition the following procedure can be used.

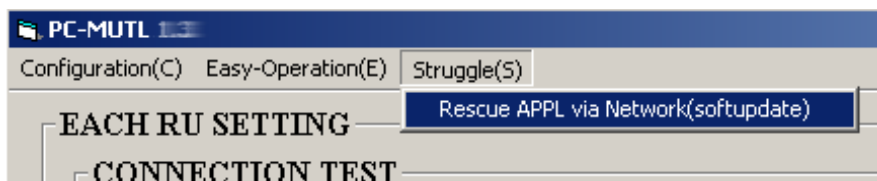
Please use this procedure carefully otherwise the CPU board can be destroyed.

For further information please refer to the service manual of the reader, chapter **Rescue APPL via Network (Soft Update)** or **Action to be Taken When the RU Application Software is Damaged**.

1. Establish either a network or serial connection to the reader.  
The prompt '**->**' appears.
2. Enter **softupdate** and press **<Enter>**.
3. After the message **Write OK** appeared ( approx. 2 min.) reboot the reader.

### **Alternatively:**

If the network connection still works the same result can be achieved by using the menu **Struggle(S)/ Rescue APPL via Network(softupdate)** of the PC Maintenance Utility:



## 9. SENSITIVITY and SHADING CORRECTION

### Precondition:

- The scanning unit of the reader has been cleaned before.
- The scanner data have been copied to a floppy diskette by using the service program PC-MUTL.

### 9.1. Check sensitivity setting

1. Uniformly expose a 35x35 cm or 35x43 cm (14x14", 14x17") IP with a dosage of about 1mR (8.7 µGy) at about 80kV. Use a large SID (min.1.8m). Don't use any filters. Open the shutters of the collimator completely. Green label of the cassette shows to the anode of the tube.  
Check the dosage with a dosimeter.
2. Wait 10 minutes before entering the cassette into the reader. Select examination: **SERVICE/ TEST** and the view **SENSITIVITY**. Be sure that this view is programmed to EDR = 1 (semi mode) and MRM code 0900.
3. Compano system:  
For the result look at the EasyVision.  
S value: 170 ... 250  
Pixel value: 450 ... 570 all over the image

Compano S systems:

For the result look at the film:

S value: 170 ... 250  
Density: 1.0...1.3...1.6

If not perform the automatic sensitivity and shading correction.

Note:

It is possible to use the double dose (2 mR/ 17.4 µGy). Then the S value should be in the range 85 ... 115.

### 9.2. Adjust sensitivity and shading correction

1. Start the normal application mode and an examination under SERVICE/ TEST, so that the green ready lamp of the reader goes on.
2. Uniformly expose a 35x43 cm (14"x17") IP with a dosage of about 1mR (8.7 µGy) at about 80kV. Use a large SID (min.1.8m). Don't use any filters. Open the shutters of the collimator completely. Green label of the cassette shows to the anode of the tube.  
Check the dosage with a dosimeter and write down the measured value and the time (now you have 10 minutes for the next steps).
3. Press <Ctrl> + <Esc> to get the task bar of WINDOWS.
4. Click on Start/ Run and browse for **c:\Program Files\FujiFilm\FCR\TOOLS\cr346uty.exe**.  
The service program PC-MUTL will be started.
5. Select the reader unit and click on MUTL.
6. Login with cr-ir346 and the password cr-ir346.
7. Enter at the prompt → mutl and press <Enter> to start the MUTL program at the reader.
8. Select **SCANNER UTILITY**.

9. Select **DATA MANAGEMENT, DISPLAY SCN DATA ETC** and **DISPLAY CURRENT DATA** and write down the following values:  
 HVCENT: .....e.g. 474  
 HVDATA: .....e.g. 474

10. Select **SHADING/ SENSITIVITY, SHADING/POLYGON** and **ON**.

11. Select **CALCULATION** and **SHADING,POLYGON AND SENSITIVITY**.

12. Enter the measured dose in [mR], e.g. 1.05, and press <Enter>.

13. After 10 minutes the IP has been exposed put the cassette into the reader.

14. When the IP has been read out ("Result: OK" appears), check again **DISPLAY CURRENT DATA**:

HVCENT: .....e.g. 512  
 QVDATA: .....e.g. 474 or \*\*\*\*\*  
 The upper value should differ a little bit from the previous one.

If you see extreme differences then reboot the reader and repeat all steps.

15. Select **DATA MANAGEMENT** and **SAVE SCN DATA FROM RAM TO FLASH& SERV** to make changes permanent effective.  
 Alternatively the backup function of PC-MUTL can be used to store the new data also on a floppy disk.

16. Leave and close the service programs.

17. Perform again the instructions given in **Check sensitivity setting**.

18. Make a backup of all scanner data onto a floppy diskette.

Note:

The sensitivity adjustment can be executed by using a dose in a range of 0.5 to 10 mR.  
 Recommended is a value in a range of 1 to 2 mR.

### 9.3. Sensitivity Adjustment – Tolerances

<b>Dose:</b>	1 mR ± 10%	Measured in 1% resolution, at 80 kV and in 1.8m distance, without any filter. The deviation from 1mR has to be entered in 1% accuracy as the correction factor into the reader.
<b>S value:</b>	180... <u>200</u> ...220	10%
<b>Pixel value:</b>	486... <u>511</u> ...536	In <b>main scan direction</b> of the reader , that means from the left to the right IP edge. (5%)
<b>Pixel value:</b>	460... <u>511</u> ...562	In <b>subscan direction</b> of the reader , that means from top to bottom of the IP. (10%) The larger tolerance is caused by the tube (anode angle).
<b>Density:</b>	1.2... <u>1.5</u> ...1.8 1.0... <u>1.3</u> ...1.6 1.0... <u>1.3</u> ...1.6	No processing and curve 'a' of the lookup- table at EasyVision. UM processing and curve 'A' of the lookup-table at EasyVision. Standard processing at Compagno S.

## 10. Remote Service

### Telnet session:

- Start a Telnet connection on the remote PC to the IP address of the Reader.  
The Reader replies with: ***RU[reader name] login:***
- Enter the login name : ***cr-ir346***
- Enter the password : ***cr-ir346***  
The operating system of the Reader prompts with: ***->***
- To start the maintenance utility enter: ***mutl***

MAINTENANCE UTILITY FOR CR-IR346.

Escape INPUT/AUTO mode: [CTRL+C] [ENTER]

0. QUIT
1. LOG
2. VERSION
3. TEST
4. ELECTRICAL UTILITY
5. SCANNER UTILITY
6. MECHANICAL UTILITY
7. SOFTWARE UTILITY
8. BACKUP MEMORY
9. HV OFF

### FTP session:

- Start the FTP program on the remote PC with the following configuration:  
IP address of the Host PC !  
User name (default): ***cr-ir346***  
Password (default): ***cr-ir346***  
Type: ***Binary***  
Target directory: ***system/<reader name>***
- Copy the configuration files to or from your remotely connected PC.  
Path: ***/system/<reader name>/config/***  
irset.cfg = system configuration  
irstatus.cfg = internal configuration, do not change!  
netmasks = netmasks  
route = routing
- Copy the error logging and trace data files saved before on the Host PC via the Telnet session, to the remotely connected PC.  
path ***/system/<reader name>/log/***  
errorx.log = errors, system does not work  
error0.log = messages and warnings  
and all other files of this directory for third level service
- Close the FTP program on the remote PC.

**Do not change anything in files which either contain the note "Do not edit this file" or which have the file name extension ORG!**

These kind of files are default files and can be copied if something went wrong during a configuration.

### Alternatively:

Much more user friendly special remote software, e.g. Remote Administrator, can be used.  
See the Release Bulletins of the Console Compano S and the Preview Unit respectively.